

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Expanding Flexible Use of the 3.7 to 4.2 GHz Band)	GN Docket No. 18-122
)	
Petition for Rulemaking to Amend and Modernize)	RM-11791
Parts 25 and 101 of the Commission's Rules to)	
Authorize and Facilitate the Deployment of)	
Licensed Point-to-Multipoint Fixed Wireless)	
Broadband Service in the 3.7-4.2 GHz Band)	
)	
Fixed Wireless Communications Coalition, Inc.,)	RM-11778
Request for Modified Coordination Procedures in)	
Band Shared Between the Fixed Service and the)	
Fixed Satellite Service)	

COMMENTS OF THE SATELLITE INDUSTRY ASSOCIATION

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EXECUTIVE SUMMARY

The International Bureau and Wireless Telecommunications Bureau of the Federal Communications Commission seek additional targeted comment in the Commission's *Expanding Flexible Use of the 3.7-4.2 GHz Band* proceeding, in which the Commission is considering market- and auction-based approaches to make spectrum available for terrestrial wireless use in the 3.7-4.2 GHz band while protecting the operations of existing Fixed Satellite Service and Fixed Service providers. The Bureaus' *Public Notice* seeks comments on the rights held by space station and earth station operators pursuant to both their authorizations and the constraints imposed by the Communications Act.

The Satellite Industry Association offers comment to demonstrate that satellite operators do in fact have enforceable rights, and that these rights are not derivative of earth stations. The Communications Act—which focuses the Commission's authority on the regulation of transmission—indicates that the right to operate free from interference is properly held by entities operating transmitters as opposed to receivers. The Commission's historic regulation of satellite services—which separately authorizes space stations and earth stations, views the regulation of receive-only earth stations as ancillary to the Commission's authority to regulate transmission, and focuses heavily on space stations as the primary vehicle of authorization through which satellite network operating parameters are established—confirms that space station operators possess independent rights to provide service free from interference. The limitation on the Commission's authority imposed by Section 316 of the Communications Act, as well as the nature of the interests conveyed by Commission authorizations as understood both by the Commission itself and reviewing courts, establish that the rights conveyed to space station operators are meaningful and enforceable.

A determination that space station operators lack enforceable rights to transmit free from

interference would undermine decades of Commission precedent recognizing the value of, and seeking to promote, satellite services and threatens to stifle the deployment and provision of satellite services. The Commission should remain cognizant of the tremendous value of satellite services as it continues to consider how best to accommodate terrestrial wireless services in the 3.7-4.2 GHz band.

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COMMENTS OF THE SATELLITE INDUSTRY ASSOCIATION

I. INTRODUCTION AND SUMMARY

The Satellite Industry Association¹ ("SIA") hereby offers these comments in response to the *Public Notice* in the above-referenced proceeding in which the International Bureau and Wireless Telecommunications Bureau of the Federal Communications Commission ("FCC" or "Commission") seek "targeted comment on the extent to which satellite space station operators have enforceable rights against harmful interference from terrestrial stations in the [3.7-4.2 GHz

¹ SIA Executive Members include: AT&T Services, Inc.; The Boeing Company; EchoStar Corporation; Intelsat S.A.; Iridium Communications Inc.; Kratos Defense & Security Solutions; Ligado Networks; Lockheed Martin Corporation; OneWeb; SES Americom, Inc.; Space Exploration Technologies Corp.; Spire Global Inc.; and Viasat, Inc. SIA Associate Members include: ABS US Corp; Airbus Defense and Space, Inc.; Analytical Graphics, Inc.; Artel, LLC; Blue Origin; Eutelsat America Corp.; ExoAnalytic Solutions; Globalstar, Inc.; Glowlink Communications Technology, Inc.; HawkEye 360; Hughes; Inmarsat, Inc.; Kymeta Corporation; Leonardo DRS; Omnispace; Panasonic Avionics Corporation; Peraton; Planet; Speedcast Government; SSL; Telesat Canada; and XTAR LLC. For more information on SIA, see www.sia.org. These comments are supported by all SIA members except for AT&T Services, Inc., which abstains from participation.

band (“C-band”)] under their space station licenses and market access grants.”²

In the *Public Notice*, the Commission suggests that rights to protection from harmful interference for satellite services may originate with earth stations.³ However, in actuality this dynamic is reversed: satellite space station operators possess enforceable rights to transmit free from harmful interference in accordance with their authorizations, and any rights of earth stations to receive satellite communications are derivative of those transmission rights. The statutory bases of the FCC’s authority, the Commission’s historic regulation of satellite networks, and the nature of license rights as understood by the FCC and courts each bear this out.

Moreover, finding that space stations lack enforceable rights would undermine the continued development of the satellite industry, threatening the provision of services whose value the FCC and U.S. Government have repeatedly affirmed. Indeed, as the Commission continues this proceeding and considers whether and how to introduce new terrestrial wireless services in the 3.7-4.2 GHz band, the Commission must not lose sight of the valuable services that Fixed Satellite Service (“FSS”) operators already provide both in the band and to the overall telecommunications landscape.

II. THE NATURE OF THE COMMISSION’S REGULATORY AUTHORITY AND ITS EXERCISE OF THAT AUTHORITY IN THE SATELLITE CONTEXT DEMONSTRATE THAT SATELLITE OPERATORS HAVE ENFORCEABLE RIGHTS TO TRANSMIT FREE FROM INTERFERENCE.

The Commission can be confident that space station operators possess enforceable rights to transmit free from harmful interference in order to provide service consistent with their

² International Bureau and Wireless Telecommunications Bureau Seek Focused Additional Comment in 3.7-4.2 GHz Band Proceeding, Public Notice, GN Docket No. 18-122, RM-11791, RM-11778, at 2 (rel. May 3, 2019).

³ See, e.g., *id.* at 3 (asking “to what extent . . . the enforceable rights of a space station operator [are] dependent on, or derivative from, the rights of licensed or registered receive-only earth stations that receive that space station operator’s signal”).

authorizations. Multiple provisions of law bear this out. First, the keystone of the FCC’s statutory authority is, first and foremost, the regulation of transmission. Second, the Commission’s historic regulatory treatment of the satellite industry in light of its authority and responsibility to regulate transmission further demonstrates that space stations have independent rights to transmit that do not depend on earth stations. Finally, both the Communications Act and relevant case law establish that the interests conveyed by FCC authorizations are protectable. Accordingly, space station operators possess enforceable rights to transmit, and any right of an earth station to receive a satellite communication is derivative of the right held by the space station operator.

A. The Communications Act Focuses the Commission’s Authority on the Regulation of Transmission.

Multiple provisions in the Communications Act confirm that the Commission’s primary regulatory imperative with respect to radiocommunications is the regulation of transmission. The first section of the chapter of the Act on radio communication explains that “[i]t is the purpose of this chapter, among other things, to maintain the control of the United States over all the channels of radio *transmission*; and to provide for the use of such channels, but not the ownership thereof, by persons for limited periods of time, under licenses granted by Federal authority.”⁴ Statutory terms relevant to the scope of the Commission’s authority are similarly conceptualized in terms of transmission. For instance, “radio communication” is “the *transmission* by radio of writing, signs, signals, pictures, and sounds of all kinds, including all instrumentalities, facilities, apparatus, and services (among other things, the receipt, forwarding, and delivery of communications) incidental to such transmission.”⁵ “Radio station” is defined as “a station equipped to engage in radio

⁴ 47 U.S.C. § 301.

⁵ *Id.* § 153(40) (emphasis added).

communication or radio *transmission* of energy.”⁶ Similarly, “station license,” “radio station license,” and “license” are all defined as an “instrument of authorization . . . for the use or operation of apparatus for *transmission* of energy, or communications, or signals by radio, by whatever name the instrument may be designated by the Commission.”⁷

Consistent with the Communications Act’s focus on governmental control over radio transmissions, much of the Commission’s statutory authority and responsibility involves regulating “stations,” and “licenses,” which are the avenues and authorizations of transmission.⁸ Importantly, this authority and responsibility includes “[m]aking such regulations . . . as [the Commission] may deem necessary to *prevent interference between stations*.”⁹ Thus, protecting transmissions from interference is a touchstone of the Communications Act and the FCC’s mission. Pursuant to this directive, the Commission regulates the transmission of radio communications for a wide variety of services, creating regulatory obligations—and protectable rights—for service operators, with a focus on protecting transmission as opposed to receivers.¹⁰

⁶ *Id.* § 153(42) (emphasis added).

⁷ *Id.* § 153(49) (emphasis added).

⁸ *See, e.g.*, 47 U.S.C. § 303(a) (delineating the FCC’s responsibility and authority to classify radio stations); *id.* § 303(b) (to prescribe nature of service to be provided by stations and classes of licensed stations); *id.* § 303(c) (to assign frequencies to stations); *id.* § 303(d) (to determine location of stations); *id.* § 303(e) (to regulate apparatus to be used by stations); *id.* § 303(l)(i) (to prescribe station operator qualifications, fixing forms of licenses); *id.* § 303(o) (to designate station call signs).

⁹ *Id.* § 303(f).

¹⁰ *See, e.g.*, *Expanding the Econ. & Innovation Opportunities of Spectrum Through Incentive Auctions*, Report and Order, 29 FCC Rcd 6567, ¶ 2 (2014) (setting forth the design of the Incentive Auction, which would enable “broadcasters who wish to relinquish some or all of their spectrum rights” through sale of their stations, rather than, for instance, having TV viewers sell their right to receive the broadcast through television receivers); *Comprehensive Review of Licensing & Operating Rules for Satellite Servs.*, Further Notice of Proposed Rulemaking, 29 FCC Rcd 12116, ¶ 87 n. 119 (2014) (“In the . . . context of terrestrial mobile operations, the

The same is true of satellite operators. As the Commission observed nearly 50 years ago, “[t]he Commission’s jurisdiction under the plain language of the 1934 statute to license and regulate domestic satellite facilities is not affected by the circumstance that the radio transmission involves stations located in space.”¹¹ Under the Communications Act, which focuses the Commission’s regulatory responsibilities on the protection of transmission, FCC authorizations to space station operators to provide satellite services should confer a right to transmit consistent with those authorizations free from harmful interference.

B. The Commission’s Historic Regulatory Treatment of Satellite Networks
Demonstrates that Space Station Operators Possess Independent Rights to
Transmit.

The Commission’s historic regulatory treatment of the satellite industry confirms that, consistent with the focus of the Communications Act on the regulation of transmission, space station operators are granted rights to transmit free from harmful interference, and that these rights are not derived from earth stations. First, the Commission authorizes space stations separately from earth stations, thus providing space stations with independent authority to provide service to any earth station within the license area consistent with the terms of the authorization.¹² This separate treatment dates back to when the Commission initially enabled non-governmental entities to provide satellite services.¹³ Under this regime, space station operators need not identify earth

license of a commercial mobile radio service (CMRS) carrier grants it authority to deploy both uplink and downlink devices, i.e., both handsets and macro- (or micro-)sites.”).

¹¹ *Establishment of Domestic Commc'n-Satellite Facilities by Nongovernmental Entities*, Report and Order, 22 FCC 2d 86, 129 (1970).

¹² Compare 47 C.F.R. § 25.114 (“Applications for space stations authorizations”) with *id.* § 25.115 (“Applications for earth station authorizations”).

¹³ See *Establishment of Domestic Commc'n-Satellite Facilities by Nongovernmental Entities*, Report and Order, 22 FCC 2d 86, ¶ 32 (1970) (“A separate application for construction permit will be necessary for each space station and each earth station, including receive/only stations.”); *id.* at Appendix D (Technical Annex) (“Each proposal shall contain a complete study

stations in their applications, nor are space station authorizations conditioned on communication with earth stations.¹⁴ This practice also extends to requests for U.S. market access by non-U.S.-licensed space station operators.¹⁵ Indeed, as the Bureaus acknowledge in the *Public Notice*, “[t]here is no specific rule in Part 25 that would result in automatic termination of a space station license for the lack of licensed or registered receive-only earth stations.”¹⁶ Instead of such a requirement, “the Commission’s rules impose specific application and orbital assignment procedures, bonds, and milestones for construction and operation of a space station, and limits on pending or unbuilt satellite systems to ensure that a license was not obtained for speculative

for the proposed domestic satellite system accompanied by separate applications for each satellite and for each earth station.”).

¹⁴ See 47 C.F.R. § 25.114; FCC Form 312 and Instructions, <https://transition.fcc.gov/Forms/Form312/312Fill.pdf>.

¹⁵ Originally, in its 1997 *DISCO II Report and Order*, the Commission established a framework whereby during a processing round, earth station identification was unnecessary, but outside a processing round, a space station operator could only obtain authorization to serve the U.S. market vis-à-vis a U.S. earth station seeking a license. See *Amendment of the Commission's Regulatory Policies to Allow Non-U.S. Licensed Space Stations to Provide Domestic & Int'l Satellite Serv. in the United States Amendment of Section 25.131 of the Commission's Rules & Regulations to Eliminate the Licensing Requirement for Certain Int'l Receive-Only Earth Stations Commc'ns Satellite Corp.*, Report and Order, 12 FCC Rcd 24094, ¶¶ 184-186 (1997) (“*DISCO II Report and Order*”). However, in its subsequent *DISCO II First Order on Reconsideration*, in the interest of putting “foreign space station operator[s] . . . in a position to market [their] services to prospective earth station customers in a manner that is consistent with the opportunities afforded to U.S. satellite providers,” the Commission revised its authorization process for market access outside processing rounds, concluding that “in addition to obtaining U.S. access through an application filed by an earth station operator, non-U.S. satellite operators may now file Petitions for Declaratory Ruling, on their own behalf, seeking a ruling as to whether the Commission will permit the non-U.S. satellite to provide service in the United States.” *Amendment of the Commission's Regulatory Policies to Allow Non-U.S. Licensed Space Stations to Provide Domestic & Int'l Satellite Serv. in the United States Amendment of Section 25.131 of the Commission's Rules & Regulations to Eliminate the Licensing Requirement for Certain Int'l Receive-Only Earth Stations Commc'ns Satellite Corp.*, First Order on Reconsideration, 15 FCC Rcd 7207, ¶¶ 1, 10 (1999).

¹⁶ *Public Notice* at 2-3, n. 12.

purposes.”¹⁷

In fact, not only are space station authorizations granted independent from earth stations, but in the context of receive-only earth stations, the Commission does not even view licensing of such stations as within its primary authority, instead relying on its ancillary authority to adopt governing regulations. In its 1979 *First Report and Order*, the Commission found that its decisions to eliminate mandatory licensing for receive-only earth stations and to implement a voluntary registration process were “legally correct” because the FCC’s licensing authority extends only to transmissions and operations incidental thereto.¹⁸ Because receive-only earth stations do not transmit at all, the Commission “conclude[d] that licensing of receive-only earth stations is not mandated by the [Communications] Act.”¹⁹ Instead, the Commission found, “the power to regulate receive-only earth stations is ancillary to our other regulatory responsibilities to maximize effective use of satellite communications”²⁰; *i.e.*, its regulatory authority to regulate transmission. Under the resulting regime, FCC rules expressly state that “[l]icensing or registration of receive-only earth stations with the Commission confers no authority to receive and use signals,”²¹ further confirming that receive-only earth stations do not possess independent rights, and certainly are not the source of satellite network rights.

The Commission’s finding that registration of non-transmitting earth stations falls under

¹⁷ *Id.* (citing 47 C.F.R. § 25.161 and *id.*, Part 25, Subpart B).

¹⁸ *See Regulation of Domestic Receive-Only Satellite Earth Stations*, First Report and Order, 74 FCC 2d 205, ¶ 31 (1979) (analyzing the definitions of “license” and “radio transmission” under Section 153 of the Communications Act, Section 301 of the Communications Act).

¹⁹ *Id.* ¶ 31.

²⁰ *Id.*

²¹ 47 C.F.R. § 25.131

the Commission’s ancillary authority is consistent with the overall structure and import of space station regulation, both in allocating spectrum rights and in assigning obligations for managing interference. If space stations did not exist, there would be no traffic for earth stations to receive. This is why the primary focus of allocating rights for satellite services has always revolved around space station licensing. Whether a satellite service can be offered begins with and hinges on obtaining operating authority for the space station(s), either through the first-come, first-served process for most geostationary orbit (“GSO”) systems or the processing round process for non-geostationary orbit (“NGSO”) systems and certain GSO systems.²² It is this space station licensing process which determines whether the satellite system will obtain the spectrum rights necessary to conduct services.²³

Further, space station licensees often bear the ultimate responsibility to avoid interference for the entire system. As the Commission has observed, although “[t]he Commission issues separate licenses for earth stations and space stations . . . [t]he satellite licensee . . . is often held responsible for the operation of both the space stations and earth stations in its satellite network.”²⁴

²² See 47 C.F.R. § 25.158 (establishing a first-come, first-served licensing process to assign spectrum rights for “GSO-like satellite operation,” which is defined as “operation of a GSO satellite to communicate with earth stations with directional antennas, including operation of GSO satellites to provide MSS feeder links.”); 47 C.F.R. § 25.157 (establishing processing round procedure to assign spectrum rights for applicants seeking to operate NGSO satellites or GSO MSS satellites that communicate with earth stations with non-directional antennas).

²³ The only exception to this is for non-U.S.-licensed systems, which may be initiated through earth station applications. However, as discussed above, the process can also be initiated through space stations. *Supra* note 15. The FCC ensured this was an option to put foreign-licensed operators on equal footing with domestic operators. *Id.* Further, the FCC has explained that it has continued to require receive-only earth stations communicating with foreign-licensed satellites to be licensed so that the Commission has “a vehicle by which . . . [to] examine factors specific to the non-U.S. satellite[.]” *DISCO II Report and Order* ¶ 201 (emphasis in original).

²⁴ *Further Streamlining Part 25 Rules Governing Satellite Servs.*, Notice of Proposed Rulemaking, FCC 18-165, 2018 WL 6017716, ¶ 4 (Nov. 15, 2018).

This is because “[d]omestically, conditions are often imposed in satellite licenses that require the satellite licensee to ensure compliance with earth station power limits as well.”²⁵ These regulatory dynamics further affirm the primacy of the space station authorization and undermine the notion that space station rights are somehow derivative of earth station rights. Indeed, in a recent Notice of Proposed Rulemaking proposing to combine earth station and space station authorization into a unitary process, the FCC envisioned that under such a regime, earth stations would be subsumed within the space station license.²⁶ Under this regime, “a comprehensive satellite network license would generally follow the application requirements for space stations and would be held by the space station operator,” who would “use contractual agreements with earth station end users to ensure it has the technical and administrative means to guarantee compliance with its network parameters and authorization, much as it does today.”²⁷ The record in that proceeding evinces strong support for these proposals and the extent to which they focus on the space stations as the central component of satellite networks from an authorization perspective.²⁸

Finally, the interplay between FCC authorization and global satellite network coordination through the International Telecommunication Union (“ITU”) further emphasizes the primacy of

²⁵ *Id.*

²⁶ *Id.* ¶¶ 6-8.

²⁷ *Id.* ¶¶ 7-8.

²⁸ See, e.g., Comments of SES Americom, Inc. and O3b Limited, IB Docket No. 18-314, at 2-3 (filed Mar. 18, 2019) (agreeing with the Commission that earth station licensing is duplicative of space station licensing, and supporting both adopting the unified proposal as set forth by the Commission and expanding it to other frequency bands and satellite services); Comments of WorldVu Satellites Limited, IB Docket No. 18-314, at 5 (filed Mar. 18, 2019) (agreeing with the Commission’s proposal to eliminate duplicative earth station licensing in favor of a unified approach); Comments of EchoStar Satellite Operating Corporation and Hughes Network Systems, LLC, IB Docket No. 18-314, at 4-5 (filed Mar. 18, 2019) (supporting the proposed changes to earth station buildout requirements because “requiring an earth station to commence operations without a satellite to communicate with would serve no purpose”).

space stations in the satellite network licensing regime. For frequency bands subject to ITU coordination, the FCC imposes conditions in space station authorizations requiring satellite operators to complete the coordination process both to obtain “protection from interference caused by radio stations authorized by other administrations,” and to maintain the FCC authorization.²⁹ This process, much like the FCC’s satellite network licensing processes, is heavily focused on space station operations.

C. The Rights Conveyed to Space Station Operators by FCC Authorizations Are Meaningful and Enforceable.

As set forth above, both the statutory scheme that creates the FCC’s authority and the regulatory structure that governs the provision of satellite services establish that space station operators have independent rights to transmit free from interference. The statutory limitation on the FCC’s ability to modify licenses, coupled with Commission and judicial interpretations of the interest conveyed by such licenses, confirm that the rights conveyed to satellite operators are both meaningful and enforceable.

The Commission’s ability to modify the rights of incumbent licensees, as the *Public Notice* acknowledges, is subject to limitations under Section 316 the Communications Act.³⁰ Section 316 empowers the Commission to “modif[y]” licenses only where doing so “will promote the public interest, convenience, and necessity.”³¹ As the D.C. Circuit reaffirmed in its 2012 *Cellco* decision, the authority to “modify” does not encompass fundamental changes.³² There, the court concluded

²⁹ See 47 C.F.R. § 25.111.

³⁰ Public Notice at 3-4.

³¹ 47 U.S.C. § 301(a)(1).

³² *Cellco P’ship v. FCC*, 700 F.3d 534, 543 (D.C. Cir. 2012) (“[T]he Commission’s section 316 power to ‘modif[y]’ existing licenses does not enable it to fundamentally change those licenses.”).

that the data roaming rule did not exceed the Commission’s authority on this ground because it required only the offering of “commercially reasonable” roaming agreements.³³ By contrast, impinging on license rights in a manner that amounts to wholesale revocation of a license would unquestionably implicate Section 316.³⁴ Indeed, permitting interference with the rights granted by a license would be similar to the behavior specifically found by the Supreme Court in *MCI* to exceed the Commission’s authority to “modify” a tariff, where the Commission “modified” the tariff out of existence by removing it entirely for a significant portion of the market.³⁵

Moreover, license holders have a clear protectable interest in the rights associated with a license.³⁶ A license is not a “non-protected interest, defeasible at will.”³⁷ As courts have explained, “to suggest as much would, among other things, throw considerable doubt on the Commission’s well-known recognition” that licensees may reasonably expect license rights to be extended or renewed as long as they are being used to provide service—and consequently “leads applicants to vie for licenses which, if awarded, will require a significant expenditure of

³³ *Id.* at 544.

³⁴ *See MCI Telecommunications Corp. v. Am. Tel. & Tel. Co.*, 512 U.S. 218, 228 (1994) (finding that statutory “authority to ‘modify’ does not contemplate fundamental changes”); *see also Cmty. Television, Inc. v. FCC*, 216 F.3d 1133, 1140-41 (D.C. Cir. 2000) (applying the reasoning of *MCI* to Section 316).

³⁵ *See MCI*, 512 U.S. at 229; *Cellco*, 700 F.3d at 544 (noting that in *MCI* the Court “held that the Commission’s power to ‘modify’ requirements related to telecommunications carriers’ obligation to file tariffs did not include the power to eliminate tariffs entirely”).

³⁶ *L.B. Wilson, Inc. v. FCC*, 170 F.2d 793, 798 (D.C. Cir. 1948) (“That private as well as public interests are recognized by the Act is not to be doubted. While a station license does not under the Act confer an unlimited or indefeasible property right . . . the right is limited in time and quality by the terms of the license and is subject to suspension, modification or revocation in the public interest—nevertheless the right under a license for a definite term to conduct a broadcasting business requiring—as it does—substantial investment is more than a mere privilege or gratuity. A broadcasting license is a thing of value to the person to whom it is issued and a business conducted under it may be the subject of inquiry.”).

³⁷ *Orange Park Fla. T.V., Inc. v. FCC.*, 811 F.2d 664, 674 n.19 (D.C. Cir. 1987).

resources.”³⁸ In the satellite context, the Commission has long held that, “given the enormous investment necessary to construct and operate a satellite system, it “will grant authority” to launch replacement satellites absent “extraordinary circumstances.”³⁹ These property-like interests in FCC authorizations have been recognized by the Commission as well as courts in various settings. For example, the Commission has “expressly permit[ted] licensees to grant security interests in the stock of the licensee, in the physical assets used in connection with its licensed spectrum, and in the proceeds from operations associated with the licensed spectrum.”⁴⁰ It has recognized the grant of a security interest in a license itself in the case of a loan from the U.S. government,⁴¹ and it has permitted the leasing of certain licensed spectrum.⁴² Plainly, licenses and other FCC authorizations establish clear protectable interests for the holders of such authorizations.

D. Accordingly, Space Station Operators Possess Enforceable Rights to Transmit that Are Not Derived from Earth Stations.

Against this statutory and regulatory backdrop, it is plain that space station operators have independent rights to transmit free from interference, and that such rights are not derived from earth stations. This right is an essential part of giving value to the space station authorization,

³⁸ *Id.* (citing *Committee for Community Access v. FCC*, 737 F.2d 74, 77-78 (D.C. Cir. 1984)).

³⁹ *Amendment of the Commission's Rules to Establish Rules and Policies Pertaining to a Mobile Satellite Service*, Report and Order, 9 FCC Rcd 5936 ¶ 187 (1994); *see also* *Establishment of Policies and Service Rules for Mobile Satellite Service in 2 GHz Band*, Report and Order, 15 FCC Rcd 16127, ¶ 105 (2000).

⁴⁰ *Facilitating the Provision of Spectrum-Based Services to Rural Areas & Promoting Opportunities for Rural Telephone Companies to Provide Spectrum-Based Services*, Report and Order and Further Notice of Proposed Rulemaking, 19 FCC Rcd 19078, ¶ 49 (2004).

⁴¹ *Id.* ¶ 51.

⁴² *See, e.g., Fixed and Mobile Services in the Mobile Satellite Service Bands*, Report and Order, 26 FCC Rcd 5710, ¶ 7 (2011) (applying the “Commission’s general secondary market spectrum leasing policies, procedures, and rules to MSS/ATC spectrum leasing arrangements”).

supplying the certainty needed to enable investment in the satellite industry, and fulfilling the Commission's obligation to regulate as "necessary to prevent interference between stations."⁴³ In practice, this transmission right necessarily requires that both space-to-earth and earth-to-space transmissions authorized by the space station authorization are protected, and can be evaluated by looking at the impact on earth stations. Although transmission rights held by satellite operators do not originate with earth stations, whether earth stations properly receive a communication indicates whether harmful interference with satellite transmission has occurred. Of course, as set forth above, the regulations promulgated pursuant to the FCC's ancillary authority do not confer authority to receive signals. Any right of an earth station to receive communications is a product of a private agreement with a space station operator, or a customer with whom the space station operator has a contractual relationship, and therefore is derivative of the transmission rights held by that operator.

Finally, as set forth above, this transmission right extends to satellite operators granted market access in addition to those licensed by the FCC. These rights, although acquired through a different procedural mechanism, are equivalent to the rights granted to license holders.⁴⁴ Market access participants make the same kinds of substantial investments to exercise their spectrum use rights that licensees do, and they must post the same bond to secure their right to use the spectrum rights they are assigned as a licensee must post to secure its rights.⁴⁵ Like license holders, market

⁴³ 47 U.S.C. § 303(f).

⁴⁴ *See Amendment of the Commission's Regulatory Policies to Allow Non-U.S. Licensed Space Stations to Provide Domestic & International Satellite Service in the United States*, First Order on Reconsideration, 15 FCC Rcd 7207, ¶ 1 (1999) ("[A] foreign space station operator will be in a position to market its services to prospective earth station customers in a manner that is consistent with the opportunities afforded to U.S. satellite providers.").

⁴⁵ 47 C.F.R. § 25.137(d)(4).

access participants rely upon the grant of those spectrum use rights in expending vast amounts of capital to commercialize those rights. The spectrum reservation provided under a grant of market access creates a legitimate and reasonable expectation of the ability to have earth stations receive signals, subject to compliance with any rules related to the operation of those earth stations (such as registration and/or coordination). Just as licensed satellite operators do, market access participants build their business based upon the grants of these rights, and the fact that their grant of rights has a name other than “license” does not change their protectable right to transmit free from interference from other uses of spectrum.

III. FINDING THAT SPACE STATION OPERATORS LACK ENFORCEABLE RIGHTS WOULD UNDERMINE INVESTMENT IN AND HARM THE PROVISION OF VALUABLE SATELLITE SERVICES.

Finding that space stations lack enforceable rights not only would be contrary to law, but would be misguided as a matter of policy. Indeed, such a finding would be detrimental to the satellite industry – a service category that the Commission has repeatedly affirmed is valuable to the U.S. telecommunications landscape.

The Commission first authorized satellite operations by non-Federal entities in 1970, in so doing recognizing both the value of services and the need for protection from interference and access to spectrum. “[S]atellite technology has proven itself in the international field,” the Commission explained, “capable of providing the means of international communications to all countries which have access to earth stations.”⁴⁶ As a result, the Commission found, “[t]here is now substantial reason to expect that satellites can also play an important role in the field of domestic communications,” as a “readily adaptable . . . means of communication to complement

⁴⁶ *Establishment of Domestic Communication-Satellite Facilities by Nongovernmental Entities*, Report and Order, 18 Rad. Reg. 2d 1631, ¶ 8 (1970) (“1970 Report and Order”).

long-haul terrestrial facilities,” with “unique promise as an economical means of providing service from one transmission point to many reception points, *e.g.*, for the relay of radio and television programs for entertainment, educational, and instructional purposes, and for reaching remote or relatively inaccessible areas.”⁴⁷ The Commission also observed that “past experience with new means of providing communication services also leads us to believe that an operating domestic system or systems may be expected to disclose other advantages which cannot now be foreseen.”⁴⁸

Since enabling commercial satellite providers to enter the U.S. market for satellite services nearly 50 years ago, the Commission has repeatedly reaffirmed the value of satellite services. For instance, the Commission observed in 1972 that “[t]he most important value of domestic satellites at the present time appears to lie in their potential for opening new markets, for expanding the beneficial role of competition in the existing markets for specialized communication services, and for developing new and differentiated services that reflect the special characteristics of the satellite technology.”⁴⁹ The Commission has repeatedly observed that satellite technology “is particularly important for serving remote, underserved, or unserved communities nationwide.”⁵⁰ The Commission has also touted the value of satellite services during and after emergencies including the September 11, 2001 terrorist attacks and deadly hurricanes, at times where wireless service was unavailable and “satellite services provided the only reliable mobile telephony, data, and

⁴⁷ *Id.*

⁴⁸ *Id.* Notably for the issues raised in this proceeding, the *Report and Order* also incorporated a presidential memorandum which recommended that “[s]atellite operating entities should have equal status with terrestrial users in interference problems and in access to the radio spectrum.” *Id.* ¶ 17a.

⁴⁹ *Establishment of Domestic Commc'ns-Satellite Facilities by Non-Governmental Entities*, 34 F.C.C.2d 9, 26 (1972).

⁵⁰ *Comprehensive Review of Licensing & Operating Rules for Satellite Servs.*, Notice of Proposed Rulemaking, 27 FCC Rcd 11619, ¶ 1 (2012).

information services.”⁵¹

Moreover, in multiple instances, the FCC and U.S. Government have protected satellite services at the expense of terrestrial services. Such actions include, for example, preserving an exclusive allocation for satellite services in the 11.7-12.2 GHz band even though the band is allocated globally to both terrestrial and satellite services,⁵² limiting terrestrial use of frequency bands used by mobile satellite service providers to “ensure the allocation remains first and foremost a satellite service,”⁵³ and requiring terrestrial licensees in the 12 GHz band to “make whatever adjustments in technical parameters or assigned frequencies are necessary to prevent harmful interference to operating DBS systems.”⁵⁴

Finding that space station operators lack enforceable rights to operate in accordance with their authorizations free from interference therefore not only would be inconsistent with the Communications Act and the FCC’s historic regulatory treatment of space stations, but also jeopardizes an entire class of service that the Commission has repeatedly recognized for its value

⁵¹ *Id.*; *Use of Returned Spectrum in the 2 GHz Mobile Satellite Serv. Frequency Bands*, Order, 20 FCC Rcd 19696, ¶ 28 (2005).

⁵² *Inquiry Relating to the Preparations for the 1977 World Admin. Radio Conference of the Int’l Telecomm. Union for Planning of the Broad.-Satellite Serv. in the 11.7-12.2 GHz Band*, Report and Order, 60 F.C.C.2d 700, 731 (1976) (Attachment: Proposals of the United States of America for the World Administrative Radio Conference for Planning of the Broadcasting Satellite Service in the 11.7-12.2 GHz Band) (“Although the 11.7–12.2 GHz band is allocated to both terrestrial and space radio services on a primary basis in Region 2 by Article 5 of the Radio Regulations, the United States has allocated this band domestically only to the Fixed- and Broadcasting-Satellite Services on a primary basis. The reservation of this band domestically to only these space services is considered necessary to assure the development within the United States of innovative communications services in a manner that is unfettered by power flux density limits and the need for frequency coordination between earth stations and terrestrial radio facilities.”).

⁵³ *Flexibility for Delivery of Commc’ns by Mobile Satellite Serv. Providers*, 18 FCC Rcd 1962, 1965–66 (2003).

⁵⁴ *Inquiry into the Dev. of Regulatory Policy in Regard to Direct Broad. Satellites for the Period Following the 1983 Reg’l Admin. Radio Conference*, 86 F.C.C.2d 719, 720 ¶ 4 (1981).

to the domestic and global markets for telecommunications services. Concluding that space station operators lack enforceable rights to transmit would threaten continued investment in the building and deployment of satellites, thereby jeopardizing the future of satellite services and undermining the decades of work that the FCC has undertaken to support and promote those services.

IV. THE COMMISSION SHOULD NOT LOSE SIGHT OF THE TREMENDOUS VALUE C-BAND FSS SERVICES BRING TO CONSUMERS AND THE NATIONAL ECONOMY.

As the Commission continues this proceeding and considers whether and how to introduce new terrestrial wireless services in the 3.7-4.2 GHz band, the Commission must not lose sight of the valuable services that FSS satellite operators already provide in the band. As SIA and numerous other commenters in the record have established in this proceeding, C-band satellite networks provide significant benefit to consumers and the overall telecommunications landscape, fulfilling the Commission’s vision of satellite services as having “unique promise” to “play an important role in the field of domestic communications.”⁵⁵

First, both distribution and contribution of video and audio content rely on the ubiquitous coverage, unmatched reliability, and distance-insensitive affordability of C-band FSS networks, which help content providers reach hundreds of millions of customers.⁵⁶ C-band infrastructure also provides essential communications services and information during natural disasters and other

⁵⁵ 1970 Report and Order ¶ 8.

⁵⁶ See, e.g., Reply Comments of the Satellite Industry Association, GN Docket No. 18-122, at 3-6 (filed Dec. 11, 2018) (“SIA Reply Comments”); Comments of the Content Companies, GN Docket No. 18-122, at 1 (filed Oct. 29, 2018) (“Content Companies Comments”); Comments of the American Cable Association, GN Docket No. 18-122, at 7 (filed Oct. 29, 2018); Comments of AT&T Services, Inc., GN Docket No. 18-122, at 3 (filed Oct. 29, 2018) (“AT&T Comments”); Comments of the C-SPAN Networks, GN Docket No. 18-122, at 2 (filed Oct. 29, 2018); Comments of Charter Communications Inc., GN Docket No. 18-122, at 1-2 (filed Oct. 29, 2018); Comments of Comcast Corporation and NBCUniversal Media, LLC, GN Docket No. 18-122, at 3-4 (filed Oct. 29, 2018); Comments of National Public Radio, Inc., GN Docket No. 18-122, at 3 (filed Oct. 29, 2018) (“NPR Comments”).

emergencies, and are critical for coverage of live events.⁵⁷ In certain remote locations, including many areas in Alaska, C-band FSS services are essential because terrestrial coverage is simply not available.⁵⁸ Finally, aviation and offshore operations similarly depend on C-band services to supply essential connectivity and transmission of data.⁵⁹

Further, the record demonstrates that FSS operators have robustly deployed facilities in the C-band and efficiently use the spectrum to provide service to American consumers, and that such services cannot be readily transitioned to other spectrum bands.⁶⁰ Thus, to ensure that the Commission continues meeting its obligation to regulate radio transmissions in the public interest, the Commission must preserve and protect C-band FSS infrastructure and the valuable services that infrastructure provides.

V. CONCLUSION

In light of the foregoing, the Satellite Industry Association respectfully requests that the Commission consider the legal issues presented in the recent *Public Notice*—as well as the legal and policy issues presented by the *Expanding Flexible Use of the 3.7 to 4.2 GHz Band* proceeding—consistent with the comments provided herein.

⁵⁷ See, e.g., SIA Reply Comments at 6-7; Comments of NCTA, GN Docket No. 18-122, at 5 (filed Oct. 29, 2018); Content Companies Comments at 2; AT&T Comments at 3; NPR Comments at 7.

⁵⁸ See, e.g., SIA Reply Comments at 7-8; Comments of Alaska Communications Internet, LLC, GN Docket No. 18-122, at 4-6 (filed Oct. 29, 2018); Comments of GCI Communication Corp., GN Docket No. 18-122, at 2-3 (filed Oct. 29, 2018) (“GCI Comments”).

⁵⁹ See, e.g., SIA Reply Comments at 8-9; GCI Comments at 2-3, Comments of Aviation Spectrum Resources, Inc., GN Docket No. 18-122, at 2-3 (filed Oct. 29, 2018); Comments of Lockheed Martin Corporation, GN Docket No. 18-122, at 9-10 (filed Oct. 29, 2018); Comments of Speedcast Communications, Inc., GN Docket No. 18-122, at 2 (filed Oct. 29, 2018); Comments of Global Eagle Entertainment Inc., GN Docket No. 18-122, at 1.

⁶⁰ See, e.g., SIA Reply Comments at 14-15; Content Companies Comments at i; Comments of the National Association of Broadcasters, GN Docket No. 18-122, at 3-4 (filed Oct. 29, 2018).

Respectfully submitted,

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